



CHS Inc.
395 164th Street,
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South Sioux City, NE 68776

April 3, 2017

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Asst. City Attorney
405 6th Street, PO Box 447
Sioux City IA, 51101

Re: Notice of Violation Issued to CHS, 3/20/2017
Protected Settlement Communication

Following a notice of violation (NOV) received from the City of Sioux City on March 8, 2017, the City of Sioux City issued CHS Inc. a Significant Non-Compliance Review on March 20, 2017 (the "Review") regarding compliance with Standard Permit Conditions for Significant Industrial Users to Discharge Wastewater into the Sanitary Sewer System issued 4/14/2014. Desiree McCaslen has instructed CHS to direct any response to the City Attorney. Before initiating any formal appeal process, CHS would like to discuss the fine of \$79,000 proposed in the Review¹ and determine whether a reasonable compromise is possible.

Background

The Review bases the amount of the fine on the following alleged violations:

- November 2016
 - 10 days on which CHS's discharge was below a pH range, 1 day when it was above, and 5 days when it was both below and above, for a total of 21 violations
 - 16 violations for days on which CHS failed to report limit exceedances
- December 2016
 - 6 days below range, 3 days above, and 8 days both, for a total of 17 violations
 - 17 violations for days on which CHS failed to report limit exceedances
- Total: 79 violations at the maximum amount of \$1,000 per day

¹The Review states that the fine "shall be issued Friday, March 20, 2017." CHS did not receive a separate document regarding the issuance. As a side note, did the City intend a separate document for the issuance?

We note from our preliminary review of fines imposed in Iowa that \$79,000 appears well outside the range generally assessed for similar violations. For instance, a search of the Iowa Department of Natural Resources' database for National Pollution Discharge Elimination System related settlements between October 10, 2014 and March 20, 2017 showed only two settlements above \$10,000. Both of these violations included significant restitution for fish kills, and most of the violations increased pollutants to a receiving water body.

Factors Applicable to Fine Amounts

According to the City's applicable ordinance provisions and its Enforcement Response Program ("ERP") the severity of fines be determined by the following factors:

- Magnitude of the violation
- Duration of the violation
- Effect on the treatment plant
- Effect on the receiving waters
- Compliance history
- Good faith of the violator

The Review does not indicate how these factors were applied, if at all. The following discusses how CHS believes they should be applied for purposes of settlement.

Magnitude and Duration

The following table details pH limit excursions based on continuous readings. The data has been slightly modified in that the out of range occurrences on December 6 and December 18 carried over into the next day. CHS counted these occurrences as single events whereas Ms. McCaslen labelled these as separate violations. The total time is reflected in the following chart and is the same as presented by the City of Sioux City.

Date	pH out of permit range[1]	Total Minutes out of range for date	Percent of 1 day	Percent of 1 hour	Proposal reference
11/1/2016	< 5.0	17.32	1.20%	28.87%	\$ 216.50
11/2/2016	< 5.0	40.13	2.79%	66.88%	\$ 501.63
11/3/2016	< 5.0	0.50	0.03%	0.83%	\$ 6.25
11/4/2016	< 5.0	0.03	0.00%	0.05%	\$ 0.38
11/6/2016	< 5.0	5.57	0.39%	9.28%	\$ 69.63
11/6/2016	> 11.5	3.20	0.22%	5.33%	\$ 40.00
11/7/2016	< 5.0	62.00	4.31%	100.00%	\$ 750.00
11/7/2016	> 11.5	16.55	1.15%	27.58%	\$ 206.88
11/10/2016	< 5.0	11.95	0.83%	19.92%	\$ 149.38
11/10/2016	> 11.5	7.10	0.49%	11.83%	\$ 88.75
11/11/2016	< 5.0	23.02	1.60%	38.37%	\$ 287.75
11/11/2016	> 11.5	9.25	0.64%	15.42%	\$ 115.63

11/14/2016	< 5.0	2.83	0.20%	4.72%	\$ 35.38
11/15/2016	< 5.0	10.43	0.72%	17.38%	\$ 130.38
11/16/2016	< 5.0	2.98	0.21%	4.97%	\$ 37.25
11/17/2016	< 5.0	2.17	0.15%	3.62%	\$ 27.13
11/18/2016	< 5.0	4.28	0.30%	7.13%	\$ 53.50
11/19/2016	< 5.0	1.53	0.11%	2.55%	\$ 19.13
11/20/2016	< 5.0	14.48	1.01%	24.13%	\$ 181.00
11/20/2016	> 11.5	6.57	0.46%	10.95%	\$ 82.13
11/22/2016	< 5.0	6.63	0.46%	11.05%	\$ 82.88
12/2/2016	< 5.0	4.98	0.35%	8.30%	\$ 62.25
12/3/2016	< 5.0	27.35	1.90%	45.58%	\$ 341.88
12/4/2016	< 5.0	105.35	7.32%	100.00%	\$ 750.00
12/4/2016	> 11.5	3.52	0.24%	5.87%	\$ 44.00
12/5/2016	< 5.0	543.15	37.72%	100.00%	\$ 750.00
12/5/2016	> 11.5	24.12	1.68%	40.20%	\$ 301.50
12/6/2016	< 5.0	207.62	14.42%	100.00%	\$ 750.00
12/6/2016	> 11.5	67.47	4.69%	100.00%	\$ 750.00
12/9/2016	< 5.0	0.75	0.05%	1.25%	\$ 9.38
12/10/2016	< 5.0	304.85	21.17%	100.00%	\$ 750.00
12/11/2016	< 5.0	819.67	56.92%	100.00%	\$ 750.00
12/12/2016	< 5.0	5.07	0.35%	8.45%	\$ 63.38
12/12/2016	> 11.5	6.95	0.48%	11.58%	\$ 86.88
12/13/2016	< 5.0	0.92	0.06%	1.53%	\$ 11.50
12/13/2016	> 11.5	11.88	0.83%	19.80%	\$ 148.50
12/17/2016	> 11.5	304.23	21.13%	100.00%	\$ 750.00
12/18/2016	> 11.5	120.68	8.38%	100.00%	\$ 750.00
12/20/2016	> 11.5	34.3	2.38%	57.17%	\$ 428.75
12/22/2016	< 5.0	123.42	8.57%	100.00%	\$ 750.00
12/23/2016	< 5.0	2.07	0.14%	3.45%	\$ 25.88
12/26/2016	< 5.0	8.28	0.58%	13.80%	\$ 103.50
12/26/2016	> 11.5	1.28	0.09%	2.13%	\$ 16.00
					\$ 11,474.88

Effect on Treatment Plant and Discharge Waters

The City has not presented any information indicating that any harm resulted from the CHS effluent during the alleged violations. CHS did not cause any interference or by-pass conditions in the City of Sioux City's publicly owned treatment works. CHS has not been informed of harm to any equipment or additional treatment costs. The City has not presented evidence that CHS was the cause of any problems.

Compliance History

CHS recognizes that in years past the City had informed it of problems regarding BOD and TSS in its wastewaters. While the current settlement focuses on pH limits, for purposes of compromise and settlement, CHS has taken past notices into account when preparing the settlement proposal discussed below.

Good Faith

CHS has been fully committed to meeting all environmental requirements for its operations. CHS purchased the facility in South Sioux City, NE on July 1, 2012 and with the assistance of Ms. McCaslen and her team identified wastewater effluent as an area of opportunity. CHS investigated multiple pretreatment options, including installation of a dissolved air floatation unit for a multiple month testing period. During this testing period Big Ox Energy (BOE) approached CHS about sending effluent to a proposed BOE wastewater methane production facility. BOE informed CHS the facility was designed to receive CHS effluent without any pretreatment requirements. The City of South Sioux City supported BOE's recruitment of industrial customers.

Told that BOE would initiate production in April 2016, CHS stopped investigating pretreatment options and intended to retire the existing effluent equalization and pH adjustment system, as there was no reason to upgrade the equipment or implement additional pretreatment programs designed to remove the constituents BOE required. (As late as a July 1, 2016 email, Kevin Bradley of BOE confirmed that pH would not be a control point.) While waiting for the construction of the BOE facility, CHS continued to operate the existing pretreatment equipment to regulate the pH of the effluent sent to the Sioux City publicly owned treatment works.

BOE did not meet its April 2016 goal, starting operations in October 2016. Failure of BOE to meet that deadline provided a challenge to CHS, as the plant was obligated to continue to operate the effluent EQ tank and pH control systems to the best of their capabilities. At no time prior to January 2017 was CHS notified that pH was a point of concern for the City of Sioux City.

As part of plant upgrades, CHS installed a new programmable logic controller during October 2016. The installation allowed for greater information gathering of the pretreatment system parameters. After this change, CHS started to voluntarily run reports designed to provide pH information to BOE as they attempted to start-up their facility. Prior to this time period CHS did not run pH monitoring reports, nor were the reports required.

CHS has been fully cooperative with all City of Sioux City investigations. After a CHS reported incident on January 30, 2017 while discharging to BOE, the city of Sioux City requested all pH information from January 2016 through January 2017. The pH data requested was not readily available. CHS has spent in excess of \$17,000 to mine the data from the facility's Factory Talk Historian (Allan-Bradley) data system and present the data in an understandable format because the data was not readily available for day-to-day management decisions due to the way the system was configured.

Settlement Offer

Excursions

CHS proposes that fines on the excursions be levied according to the amount of time in which the excursions occurred each day (noting that the time for the measured pH excursions would have exceeded the actual time as the meter measured the parameter well upstream from the discharge point), with a maximum penalty of \$750.00. The proposed maximum is consistent with the application of factors regarding effects, compliance history, and good faith previously discussed. The time portion is based on percentage of one hour, with any excursions totaling more than one hour pegged at \$750.00. The total amount of the fines from this methodology is indicated in the table set forth above as \$11,474.88.

Reporting

As background, CHS notes that there are no permit, ordinance or code requirements for continuous pH monitoring. Technically, based on required sampling, there were no excursions to report. Also, as noted previously, two of the events continued through midnight, which CHS has treated as a single reportable event. In the spirit of compromise, CHS would accept 32 days of fines at the rate of \$100.00 per day, for a total of \$3,200.00.

Offer

Based on the above discussion, CHS offers to settle this matter for the amount of \$14,675.00, an amount greater than apparent in Iowa Department of Natural Resource's database for similar violations. The offer is contingent on the parties reaching agreement regarding the form of the settlement document, which would include among other usual settlement provisions a provision stating that the agreement contemplates settlement of all previous wastewater discharge violations of any kind, known or unknown.

Thank you for your consideration of CHS's concerns.

Sincerely,



Chris Oehler

Plant Manager- CHS

CC: William Minor, Eric Larson, Mark Jundt, Dennis Reis, Desiree McCaslen